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NATIONAL SILK CONVENTION.

The convention of Silk Culturists, assembled in the Grand Lodge room of the Masonic Hall, in the city of Baltimore, on Tuesday, December 11, 1838. One hundred and seventy-five delegates were in attendance from eleven states and the District of Columbia.

Judge Comstock, of Connecticut, was called to the chair, and Dr. C. C. Cox, of Baltimore, and J. F. Callan, of Washington, appointed secretaries.

On motion it was *resolved*, that all persons present from different parts of the United States friendly to the objects of this convention, and not duly appointed delegates, be invited to take seats in this convention.

On motion, it was *resolved*, that the states be called in order, and the names of the delegates from each be reported to the secretaries.

The names of the delegates having been recorded, it was found that there were one hundred and seventy-five in attendance.

Dr. Buck, of Washington, then moved that the convention adjourn to meet in the city of Washington.

Upon this motion a debate ensued, in which Messrs. Buck, Gummere, Kinsman, Olmstead, Hopper, Clarke, Thomson, Ellis, Henry, and McLean, participated. The motion was then postponed.

On motion, it was *resolved*, that a committee to consist of one from each state be appointed to nominate permanent officers to the convention.

The committee after having retired for consultation, reported the following persons as officers of the convention:

JUDGE COMSTOCK, *of Connecticut*, PRESIDENT.

VICE-PRESIDENTS.

Samuel Whitmarsh, *of Mass.*
E. A. Russell, *of Connecticut.*
J. H. King, *of New York.*
Dr. Green, *of New Jersey.*
Samuel D. Ingham, *of Penn.*
Dr. A. Naudain, *of Delaware.*
Judge Eccleston, *of Maryland.*
Michael Nourse, *of Dist. of Col.*
James Winston, *of Virginia.*
James Duncan, *of Ohio.*
J. Adams, *of Georgia.*

LUTHER J. COX, *of Baltimore*, TREASURER.

SECRETARIES.

Dr. C. C. Cox, *of Baltimore.*
J. F. Callan, *of Washington.*
T. S. Pleasants, *of Virginia.*
George Gaskell.
M. T. C. Gould, *of Penn.*

On motion, *resolved*, that a committee be appointed to report business for the action of the convention.

COMMITTEE OF BUSINESS.—Samuel R. Gummere, of N. Jersey, Samuel Whitmarsh, of Massachusetts, Dr. R. W. Hall, of Maryland, Dr. Thomson, of Delaware, Judge Eccleston, of Maryland, Gideon B. Smith, of Maryland, Mr. Milner of New Jersey, Dr. William Gibbons, of Delaware, Thomas S. Pleasants, of Virginia, Daniel Longstreth, of Pennsylvania, C. G. Atkinson, of New Jersey, J. H. Cobb, of Massachusetts, Henry Snyder, of Pennsylvania, J. F. Callan, of District of Columbia, George Olmstead, of Connecticut, Edward P. Roberts, of Maryland.

The convention then adjourned until seven o'clock, P. M.

Pursuant to adjournment, the convention assembled at seven o'clock, P. M. Additional names were handed in of members of the convention, after which, the committee appointed to report on the business of the convention, submitted the following resolutions, which were adopted:

1. *Resolved*, That it is expedient to form a National Silk Society, and that a committee of five members be appointed to draft and report a constitution for the same.

Committee on this resolution, Messrs. Gummere, Cobb, Thomson, Buck and McLean.

2. *Resolved*, That a committee of three be appointed to draft an address to the people of the United States on the culture of silk.

Committee, Messrs. Smith, of Maryland, Gibbons, and Gummere.

3. *Resolved*, That a committee of three practical men be appointed to recommend the best silk reel for the United States, and that the committee be requested to give their reasons for their preference.

Committee, Messrs. Whitmarsh, Smith of Maryland, and Cobb.

The motion to adjourn the session of the convention to Washington was then called up by Mr. McLean, and after some discussion was rejected.

On motion, it was *resolved*, that a committee of three be appointed to prepare rules of order for the convention.

Committee, Messrs. Kinsman, Naudain and Pleasants.

The convention then adjourned until to-morrow at eleven o'clock.

December 12, 1838.

The convention having again assembled, the committee appointed to prepare rules of order, made a report, which was adopted.

The committee appointed to draft a constitution for a National Silk Society, made a report, which, after being amended, was adopted.

Many resolutions were offered and laid on the table, after which the convention adjourned to meet at seven o'clock, P. M. in order that an opportunity might be afforded the members during the afternoon to form the National Society.

Pursuant to adjournment, the convention assembled at seven o'clock, P. M.

The special order being the following resolution, offered by Dr. Thomson:

Resolved, That it is the deliberate opinion of this convention, that silk may be grown in all the United States, not only for domestic purposes, but as a valuable article of commercial export—thereby giving active employment to American labour, and retaining millions of dollars in our country, that are annually sent out of it for the purchase of silken goods.

The presentation of the above resolution elicited much interesting information from Messrs. Cobb, of Massachusetts, Smith, of Massachusetts, Smith, of Maryland, Comstock, Olmstead, Whitmarsh, and many others. The resolution was unanimously adopted, and the convention adjourned to ten o'clock to-morrow.

December 13.

The convention assembled at ten o'clock, A. M. pursuant to adjournment.

The committee appointed to recommend the best silk reel for the United States reported. After considerable discussion on the report, the Rev. Mr. McLean, of New Jersey, offered the following as a substitute, which was accepted, and unanimously adopted, viz:

Whereas, the committee appointed to recommend the best reel for the people of the United States, have made a report, recommending the Piedmontese reel as combining the principles necessary to produce a perfect and convenient article; therefore—

Resolved, That the convention recommend said reel or any other combining its essential principles and proportions to the silk-growers of the United States, and that the executive committee of the American Silk Society be requested to communicate to the public, in such way as they see proper, the importance and necessity of adopting said reel.

Dr. Gibbons, of Delaware, offered the following resolution, which was unanimously adopted:

Resolved, That the convention recommend to those who are cultivating the mulberry tree for market, to turn their attention to the production of silk, by which they will not only increase their own gain, but eminently subserve the interests of their country by diffusing a knowledge of this highly important branch of national industry, and exhibiting practical and demonstrable evidence of the profits to be derived therefrom.

Dr. Gibbons prefaced his resolutions by some appropriate remarks, during which he exhibited a calculation of the profits of the silk culture, &c. which was ordered to be recorded on the journal.

Mr. McLean also read a statement showing the results of the experiment of raising silk on the sixteenth of an acre, planted with the morus multicaulis. It was also ordered to be recorded.

Dr. C. C. Cox, of Maryland, presented a translation of the observations of a French gentleman on the subject of trees, worms, &c. which was referred to the special attention of the executive committee.

The following resolutions were then offered and adopted:

By Mr. Gummere of New Jersey,

Resolved, That it be recommended to the friends of the silk culture in the several states, where no laws for the purpose now exist, to endeavour to procure the passage of acts to encourage this branch of industry.

By Mr. Skinner, of Maryland,

Resolved, That the thanks of this convention be, and they are hereby tendered to the several gentlemen who have favoured it with a view of specimens of cocoons and of American silk, both raw and manufactured, and with their observations, the result of their researches and experience on the great objects for which this convention was assembled.

By Mr. Smith, of Maryland,

Resolved, That the members of this convention from the several states and the District of Columbia, be requested to apply to their several legislatures for such legal enactments as shall protect the plantations of mulberry trees from depredation, and make stealing or carrying away mulberry trees by trespassers an act of felony.

By Mr. Winston, of Virginia,

Resolved, That the respective state delegations composing this convention, upon their return to their constituents, be requested to call a meeting of the same, and of others friendly to the silk cause, and lay before them such information as they may have collected.

Resolved, That the respective delegations, at the meetings proposed to be called by the foregoing resolution, propose the formation of state societies, auxiliary to the National Society, and of county societies auxiliary to the state societies.

By Dr. Thomson, of Delaware,

Resolved, That the thanks of this convention are due, and they are hereby tendered, to all the pioneers and promoters of the silk culture in the United States; and that to Gideon B. Smith, of Baltimore, great merit attaches for his untiring zeal and devoted exertions in diffusing much useful knowledge connected with the subject.

By Mr. Sangston, of Maryland,

Resolved, That the proceedings of this convention be published in pamphlet form, in such number, that each and every society represented in this convention shall be furnished with one or more numbers of said proceedings, and that a committee of three be appointed to carry the resolution into effect.

Committee, Messrs. C. C. Cox, G. B. Smith, and Henry Mankin, of Maryland.

Resolved, That this convention recommend to the different states and territories to choose delegates to meet in convention, upon the subject of promoting the culture of silk in our country, in the city of Washington, on the second Tuesday after the first Monday in December, 1839.

By Mr. Kinsman, of Pennsylvania,

Resolved, That the thanks of this convention are hereby tendered to the delegates from the city and county of Baltimore, for the superior arrangements made by them for our accommodation—and also, to the citizens of Baltimore for the cordial reception and courtesy which we have individually received at their hands, since our arrival in this place.

Resolved, That the thanks of this convention be tendered to the president, vice-presidents and secretaries, for the able and impartial manner in which they have respectively discharged their duties.

The convention then adjourned *sine die.*

AMERICAN SILK SOCIETY.

December 12, 1838.

At half past three o'clock, P. M. the members of the convention having assembled for the purpose of forming the proposed association, it was

Resolved, That a committee of one from each state represented, be appointed a committee to report officers for the American Silk Society.

The society then adjourned to re-assemble at half past six o'clock, P. M.

The society having again met at the hour above named, the committee reported the following officers, who were unanimously elected.

DR. ARNOLD NAUDAIN, of Delaware, PRESIDENT.

VICE-PRESIDENTS.

Judge Comstock, of Conn.
Judge Hopper, of Maryland.
Samuel Whitmarsh, of Mass.
James Winston, of Virginia.
Philip Physic, of Penn.
J. F. Callan, of Dist. Col.
Dr. George Green, of N. Jersey.
Dr. Thos. P. Jones, of Dist. Col.

J. O. LAW, of Maryland, *Treasurer.*
GIDEON B. SMITH, of Maryland, *Corresponding Secretary.*
Dr. C. C. COX, of Maryland, *Recording Secretary.*

EXECUTIVE COMMITTEE.

L. J. Cox,
S. R. Gummere,
I. Kinsman,
G. R. Garretson,
Dr. Wm. Gibbons,
J. S. Skinner,
Dr. Howard,
Thos. S. Pleasants,
John Mason, Jr.

The president and corresponding secretary, are members *ex-officio.*

The society then adjourned until nine o'clock, on Thursday morning, to give way to the convention.

December 13, 1838.

The American Silk Society convened at nine o'clock, A. M.

Dr. Thomson, of Delaware, offered the following resolution, which passed unanimously:

Resolved, That a National Silk Journal ought to be established under the auspices of the executive committee, and all the funds over and above the support of said paper ought to be devoted to the advancement of the silk cause in the United States.*

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* Under this resolution J. S. SKINNER, ESQ. postmaster of Baltimore, has been solicited to edit the Journal, and has accepted the invitation.

Mr. Gummere, of New Jersey, offered the following resolution, which was adopted:

Resolved, That it be recommended to the friends of the silk cause to take the necessary means for organizing state societies, auxiliary to the American Silk Society, which shall be represented therein by delegates.

Mr. Snyder, of Pennsylvania, offered the following, which was adopted:

Resolved, That it be recommended to the executive committee to offer such premium as they may think in accordance with the funds of the society, to encourage the culture and manufacture of silk, and that this be done at an early day.

The hour having arrived for the meeting of the convention, the society adjourned to half past three o'clock, P. M.

The society having convened at half past three o'clock, P. M. Dr. Gibbons, of Delaware, offered the following resolution, which was adopted:

Resolved, That in the judgment of this society, there are no occupations that promise more to ameliorate the moral and physical condition of a large portion of our population, and to elevate them in the scale of intellectual and moral worth, than those involved in the culture of silk. Poor children, indigent females, the lame and infirm of both sexes, and all ages, will find in this branch of industry employment lucrative, healthy and moral. That the philanthropic and humane, with those of the clerical and learned professions, in promoting by their influence and example, the culture of silk, will add another to the many already existing evidences of their devotion to the best interests of our people, and will deserve the thanks of their fellow-citizens and of this society.

Mr. Kinsman, of Pennsylvania, offered the following, which was adopted:

Resolved, That the executive committee are hereby instructed to take measures to procure the formation of state societies, and that they have authority to elect to the office of vice-president, each president of a state society, if in their judgment they shall deem it expedient before the next annual meeting.

Dr. Cox, of Maryland, offered the following, which were adopted:

Resolved, That the executive committee be requested to prepare an abstract of the proceedings of the convention and of the society, to be presented to both houses of congress.

Resolved, That when this society adjourns, it adjourn to meet in the city of Washington on the second Wednesday after the first Monday in December, 1839.

The society then adjourned.

CONSTITUTION OF THE AMERICAN SILK SOCIETY.

ARTICLE 1. This society shall be called 'THE AMERICAN SILK SOCIETY,' the object of which shall be to promote the production and manufacture of silk in the United States.

ART. 2. Any member of this convention, and any other person approved of by the executive committee hereinafter provided for, may become a member of this society by signing this constitution, or by signifying his wish to the corresponding secretary, and by paying into the treasury any sum not less than one dollar, and the same annually; and ten dollars paid at the time of subscription will constitute a member for life.

Any properly organized silk company or association may claim a perpetual membership in the 'American Silk Society,' by the payment of twenty dollars into the treasury in advance, and shall be entitled to two representatives in the annual meeting.

ART. 3. The society shall meet annually at such time and place as a majority of the members present shall appoint.

ART. 4. The officers of this society shall be a president, vice-presidents, a recording and corresponding secretary, a treasurer, and an executive committee, to consist of the president, corresponding secretary, and nine members, of whom three shall constitute a quorum, who shall be elected annually.

ART. 5. It shall be the duty of the president to preside at the meetings of the society, to perform the duties assigned to such office, and to deliver an address before the society on its great objects and interests, at the meeting succeeding that one at which he was appointed. In the absence of the president, the oldest vice-president shall preside until a president is appointed.

ART. 6. The recording secretary shall keep the books and papers of the society, and shall record its proceedings.

ART. 7. It shall be the duty of the corresponding secretary to conduct the correspondence of the society, and cause to be published such papers and documents as the executive committee shall direct.

ART. 8. The treasurer shall take charge of the funds of the society, and pay them out on the order of the executive committee. He shall also receive and dispose for exhibition all specimens of machinery, or of silk produced for premium or exhibition, and shall furnish his account annually.

ART. 9. It shall be the duty of the executive committee to devise and execute plans for the promotion of the interests of the society; shall have power to fill all vacancies in their own body; shall make an annual report of their proceedings; shall recommend measures for the adoption of the society; and shall award premiums and medals under the regulations of the society.

Art. 10. The society may elect any number of honorary members, who may meet and deliberate, but not vote with the society.

Art. 11. Not less than twenty-seven members shall constitute a quorum for the transaction of business at any regular meeting.

Art. 12. This constitution may be altered or amended by a vote of two-thirds of the members present, on a recommendation of the executive committee requesting such alteration or amendment.

DEBATES IN THE SILK CONVENTION.

December 12, 1838.

The resolution offered by Dr. Thomson, of Delaware, that it is the deliberate opinion of this convention, that silk may be grown in all the United States, &c. coming up as the special order, for the evening session,

Dr. Thomson rose and remarked, that after the observations he had made in the morning, in offering this resolution for adoption, and the importance the convention had been pleased to attach to it, by making it the special order for this hour, he would detain the convention now with but few additional remarks of his own on the important facts set forth in the resolution, having in his eye several competent and distinguished members of the convention, whom it was his hope and expectation of drawing out upon this interesting subject. He now felt assured he should effect his object, and thereby elicit information gratifying to this body and well calculated to edify the public mind at this interesting crisis of the culture of silk in the United States. The ability of the soil and climate of our country to produce silk, the value its production is destined to impart to our agricultural interests, the employment its cultivation will afford thousands who need support, the worth of the raw material for exportation, and the millions of money that will thereby be kept at home, instead of being sent abroad, are all deeply impressed upon my mind, and I have little doubt but that the facts and observations of those gentlemen who will follow me, will fully confirm the declarations set forth in the resolution now before the convention for its action.

Mr. Smith, of Baltimore, said, with the consent of the convention he would offer a few remarks in support of the resolution now under consideration. That silk may be grown in all the United States, not only for domestic purposes, but as a valuable article of commercial export, he knew from his own experience and from the testimony of the most respectable people in every state in the Union. I have now, said Mr. S. been twelve years engaged, more or less intimately in this business. For seven years, I kept an experimental cocoonery, for the express purpose of obtaining and diffusing information on the subject; and during the whole of that time not a single instance of its failure had been made known to him, which could in the remotest degree be attributable to either climate or soil. On the contrary, he had been able to prove conclusively, that the climate of our whole country, was better adapted to the silk culture than that of any other country, except China, and ours suffered nothing in comparison even with that. The great desideratum in a climate suitable for the most successful production of silk, said Mr. S. is *dryness;* and the more marked the climate of the country in this respect, the better is it adapted to the silk culture; and the further it is from it, the less is it fit for the business. If gentlemen would take the trouble to examine the writings of the Chinese, as translated into French and thence into English, and embracing a period of upwards of four thousand years, I believe, they would find that a dry atmosphere has always been considered essential to the silk business. He had found it necessary in this place to employ stoves to expel dampness. He considered England nearly equal to France as to temperature, but the atmosphere is too damp for the successful culture of silk. Even in Ireland, where the climate is much more salubrious than that of England, and the temperature unobjectionable, the culture of silk cannot be pursued. He had been surprised to see a publication made in the north of the successful use of even wet leaves—leaves even dipped in water. It had been stated that worms fed with leaves thus wet, had made better silk and more of it too, than when dry leaves were used. He begged to caution this convention against the practice. It might succeed in a single experiment, when all other circumstances combined in its favour; but as a regular practice it was highly dangerous. He had twice lost his whole brood of worms from feeding with leaves only slightly wet with dew. On the contrary, he would make a fire in his cocoonery in even damp weather, no matter how warm the weather might be, and especially at the time the worms were beginning to spin their cocoons. At this period, a dry atmosphere is absolutely essential to the formation of good silk. In damp weather, the cocoons will be soft and flabby, the fibre cannot dry speedily as it is spun by the worm, and the consequence will be an inferior article.

That silk may be cultivated in *any* part of the United States is proved by the fact that we want but six weeks of warm weather for the purpose, and what part of our happy country is there, asked Mr. S, in which we have not six weeks of hot summer weather?

Mr. Smith pointed to a morus multicaulis tree standing at the extremity of the hall, four or five years old, and grown in the state of Connecticut, unprotected from the inclemency of the winters, and yet it was uninjured; and alluded to another which had remained uninjured upon the brow of a hill at Hyde Park, on the North river, state of New York, for five or six years. [It has indeed been there since the spring of 1830, as it was given to Dr. Hosack, by Dr. Pascalis, at that time,] and yet it remained perfect, not a bud had ever been killed. Mr. S. said, he knew that silk could be made from the morus multicaulis in almost every section of the Union, and as we were but just entering upon this important branch of industry, which he hoped yet to be able to call American industry, it was of the utmost importance that we begin right. We have no prejudices to contend with, no old orchards of other trees to get clear of, no bad habits to eradicate, as in Europe.

We are asked why they do not make silk from morus multicaulis in Europe. The reason is obvious. They must in the first place go to a very considerable expense in the purchase of the trees as we have to do; but in addition to this they have their old overgrown white mulberry trees to dig up and throw away. Besides this in Europe generally, the landlords own the trees and sell the leaves by weight to the surrounding peasants to feed the worms with; and so long as they can sell their white mulberry leaves, they will not be very likely to destroy the trees for the purpose of replanting their grounds with the multicaulis, and especially so as they will not derive much if any advantage from it. Another reason why they do not make silk from this tree in Europe, is, the trees are all in possession of the nurserymen, who propagate them for exportation, for which they have a demand at high prices. The probability is, that at this day there is not one hundredth part as many plants in France as in the United States. But neither in France nor in the United States, will any one make silk while they can sell the trees at the prices now current in both countries.

Mr. S. related a series of experiments in feeding from fifteen varieties of mulberry, in 1830, viz: the morus multicaulis, the Tartarian, the white mulberry, (several kinds,) common wild mulberry, &c. &c. the result of which fully convinced him of the superiority of the morus multicaulis. The worms preferred it, the cocoons were larger, and the silk better and stronger. He then tested the strength of the silk from different varieties of the mulberry, by suspending weights to each till it broke, and in every instance he had found that from the multicaulis to bear more weight than any other kind. The native mulberry produced silk next in strength to that from the multicaulis, and the Tartarian next. But the difference was extremely slight. He believed it did not amount to more than three or four per cent. between the strongest and the weakest.

Mr. S. asserted that the multicaulis was not a Chinese tree. There was in the Phillippine Islands, it was true, a tradition that a colony of Chinese who emigrated to those islands, had brought the tree with them secretly from China; but various orders had been sent to China for it, but the tree had never been found there. The white mulberry, said Mr. S. is a native of China, and not of Italy, as is generally supposed. We had no doubt taken the idea of its Italian nativity from the fact of its extensive use in that country. The seed derived from China, is white mulberry seed, in some of its varieties. And here, said Mr. S. permit me to state a fact in relation to such seed. The white mulberry '*plays*,' as the gardeners express it, into more varieties than almost any other tree when raised from seed. I have seen a bed of seedlings all from the same parcel of imported seed, from which might be selected an hundred different varieties. It was a singular fact that white mulberry seed raised in this country did not thus play; its produce were almost always the same as the parent tree.

Mr. S. spoke favourably of the Alpine mulberry and of the Brussa, the latter being what he formerly had in his grounds, and used for feeding worms, under the name of the 'Constantinopolitana.' The word multicaulis was adopted by the Linnæan Society of Paris, as being descriptive of the specific character of the tree, which is many stalked—that is, numerous stalks grow from the crown of the roots, like those of the lilac, hazle, &c. The first introduction of the name multicaulis, into this country, was in the early part of 1830. Three of the trees were sent to the late Dr. Pascalis, of New York, under the name of morus multicaulis, with a detailed description of the tree and its botanical characters. Dr. P. sent the pamphlet containing them to me, and I at once discovered that the descriptions and drawings applied exactly to my Phillippine island mulberry, as we then called it, which had been in my possession for some time, presented to me by my friend Mr. Prince, of Long Island. This tree is still in my possession.

In reply to several questions from different gentlemen, Mr. S. stated, that he had found his worms fed upon the multicaulis, as healthy as those fed upon other varieties of the mulberry—the soil best adapted to the multicaulis, is a light sandy loam, or gravelly soil; the situation should be high and dry, with a northern or northwestern exposure, and no protection. Indeed he would select the coldest and bleakest hill-side for his multicaulis. When protected by a wall or close fence from the northern blasts they have been frequently killed; but if planted upon a high and dry ground, where water cannot stand about the roots, and exposed to the north, they can hardly be killed. They should not be grown upon low or rich ground; they become too succulent, and grow too late in the fall. Mr. S. said that his tree had always been perfectly naked of leaves, and the wood perfectly ripe to the topmost buds, before ice began to form in the fall. He objected to a clay sub-soil, as it would retain too much water and expose the roots to injury. He related an interesting experiment which he had tried in feeding with fifteen varieties of mulberry leaves—the worms uniformly preferred the multicaulis, or, as it was then called, the Phillippine island mulberry.

Mr. S. described a white mulberry tree standing in the garrison at Annapolis, in 1828, and probably there yet, which produced a great number of leaves, and the fruit of which was as black as jet; and yet it is a white mulberry tree. He mentioned this circumstance in illustration of the fact, that the colour of the fruit does not necessarily designate the species, whether white, red, or black mulberry. The silk worms were very fond of the leaves from this tree, but not so much so as of the multicaulis. The leaves were very small, but very thick, and the tree was more thickly covered with them, than any tree he ever saw.

[For the following we are indebted to M. T. C. Gould, Esq. who took notes in short hand, and who has written them out for the Journal.]

Here Mr. Potter, from New York, stated that the soil at Hyde Park, which place had been alluded to, was light and gravelly—the position some two hundred feet above the river, near a precipitous bank, with a north-west exposure, and open to the full force of north-westerly winds; and still, in this position, a multicaulis had stood uninjured for six winters.

A gentleman from New Jersey united with Mr. Smith, in testifying to the belief, that the multicaulis can be raised in the coldest parts of our country, if the ground be light and dry. He had tried experiments by planting some on high gravelly soil, some on river alluvial, some with a southern and some with a northern exposure. These trees have been exposed for three or four years, and yet not one root has been destroyed—but others standing in a clay sub-soil were killed. This gentleman has had, for the last few years, from three hundred to five hundred trees standing out in the northern and coldest part of New Jersey; and not a root was killed, except where they were planted upon alluvial or very rich land. When the ground was dry the top-most buds were uninjured, and the trees as hardy as a hickory or an oak.

Mr. Kinsman, of Philadelphia, in May, 1837, planted a tree by the side of a fence with a south-east exposure—the tree grew finely, but in January last, we had a spell of very warm weather which swelled the buds, and the leaves began to appear. In February we had a spell of severe weather, and it seemed as if the leaves and buds were entirely killed. In March, there was another warm spell, the whole of the buds started and came out, from one quarter to half an inch—in April, they were killed again; but about the middle of May they started again, and grew well through the season; an evidence that they will stand both *heat* and *cold.*

Mr. Comstock, of Connecticut, rose to offer a few remarks. The resolution before the convention is a mere question of fact—that question is, whether the raising of mulberry and feeding of worms is practicable in the United States. Upon this question what is the evidence? Have we sufficient evidence before us to justify us in sending to the world an affirmative answer? In my own mind there is *no doubt*—though other, gentlemen may not be in possession of so many facts upon the subject. Although it will not be in my power to offer all that I know, I will endeavour to present some facts, for the consideration of the convention.

Mr. C. said that his attention was called about three and a half years ago, to the culture and manufacture of silk, in consequence of being invited, as an editor, to examine certain machinery for the manufacture of silk, then exhibited in Hartford, by Mr. Gay. He became fully convinced, that the manufacture of silk in this country was practicable. Mr. C. and a few others, held a meeting, agreed to petition the legislature, to charter a company for manufacturing silk. It was made the duty of commissioners to open books, two days in succession, in each of the counties of the state. Mr. C. was one of these commissioners, they opened books in their different counties, explained the objects contemplated, but not one cent of stock was taken. Some, it is true, did subscribe in other counties. The stock being taken, the factory located, and a steam engine procured, it was discovered we had no raw material to work up.

What next? we found it necessary to awaken an interest in the agricultural community—for, unless farmers went into the propagation of mulberry we should have no silk. We then formed a society called the Hartford Silk Society—the object of which was, the same as that of this convention. After we got our society formed and organized, we found ourselves without any medium of communication with the public, which led to the establishment of a paper, which has been continued to the present time.

Mr. C. soon began to receive letters, many of which were ludicrous in the extreme. A person from one of the southern states, wanted to know upon what he could feed his silk worms for the first four or five years of their living; another requested me to send him a few worms and a little mulberry seed to feed them on, &c. Mr. C. had now in his possession from four thousand to five thousand letters from various parts of the United States. These letters communicate many important facts . One from Penobscot, near the forty-fifth degree of north latitude, in the state of Maine, informs me that they have commenced the rearing of silk—and there is therefore no doubt but silk may be grown in every township from St. Croix, in the north, to the Sabine in the south.

With respect to the tree, Mr. C. could add nothing of importance; what had been already stated, was in perfect accordance with his own experience and judgment. He believed also that we could *manufacture silks* in this country, for we have or can have all the facilities possessed in other countries. It has been said that we have not the skill or the ingenuity. But, does our mechanical skill or ingenuity suffer in comparison with that of the East Indian?

Here Mr. C. described the rude apparatus and labours of the East Indians in producing their most splendid fabrics; when the weaver takes his position in the open air, under the spreading branches of a tree, with his harness tied to a limb over his head, and his feet placed in a hole dug in the ground, at the foot of the tree. If this be true; I ask, said Mr. C. whether we cannot compete with such ingenuity? As a Yankee, I am not prepared to yield the palm.

We might talk of the interest and excitement about multicaulis, but we want no evidence upon this subject; there is sufficient already—there may be excitement without foundation; but I ask gentlemen to look at the plain sober facts. We are called visionary, for the great stories that we have told; though it will be found that we have not told half; for we knew that we should not be believed if we did. If the great object were simply to make all the money that we can upon trees it would be a different matter; but, said Mr. C., I consider it a grand national object for which we are labouring. We import $20,000,000 of silk annually; and last year $22,000,000—if you doubt it, go home and examine the wardrobes of your wives and daughters. Since my remembrance, and I am not yet fifty, my mother had one silk dress, but never more than one at a time; but is it the case now, that our wives and daughters can get along with one silk dress in a year? Let us examine ourselves—we have scarcely a garment on that is not composed in part of silk. It is a fact, that we have idlers enough in the United States to produce $20,000,000 of silk annually, if they would work, instead of which, we purchase that amount from foreign countries. Now if this $40,000,000 could be saved to us, would it not be an important item in a national point of view? Why it would make us rich.

We have assembled to give an additional impetus, to devise ways and means to induce others to enter upon the work in which we have engaged. We have formed a national society; it is organized, it is going into operation, and will no doubt, collect a mass of information which will soon be diffused throughout the community; and what may we not anticipate from the efforts of this society in three or four years.

Said Mr. C. I do anticipate seeing the day when we shall be independent of foreign nations—when we shall see our ladies promenading the streets clad in domestic silks. The fact, that a young lady in Georgia, was recently married in a dress of silk manufactured by her own hands has inspired me with hope. Show me but a few ladies engaged in the enterprise, and I will show you the *lever of Archimedes*, that will turn over the world. If this be a dream, it has been a long dream to me, and I hope it will be longer. I hope we shall all return to our homes in good spirits, and endeavour to inspire our neighbours to enter into this business heart and hand.

We have specimens now before us, which settle the question, that as to beauty and durability, we can manufacture equal to any thing from foreign countries. Here a number of beautiful specimens were exhibited, from different places; and among them ribbons which had been manufactured in three weeks from the tree—wove by a young woman, who had scarcely seen a reel or a loom for silk three months before; and upon an improved loom recently invented in Massachusetts. Here may be derived an argument, in relation to the hackneyed phrases of many, that we cannot compete with foreign manufactures on account of the high price of labour in our country. This loom is so constructed that it may be moved by water or by steam, &c. and from the account given by the proprietor, respecting the amount of labour which it will perform, as compared with the labour performed in England—there can be no doubt; for as it respects the *high* and *low* wages, the balance is decidedly in favour of America. Upon this yankee machine, a young girl, after three months experience, can weave more in a day than four old country weavers, after an apprenticeship of seven years; and as to the quality of the article, we have it before our eyes, (exhibiting ribbons, galloons, &c.) here is evidence that we cannot resist. A gentleman who has been a silk merchant for thirty years, has certified to this convention, that he never saw as good in his life; and yet a girl with three months practice, can turn out three hundred yards in a day.

[Various other gentlemen made statements of great value, which we have not been able to obtain.]

December 13, 1838.

[The following paper was handed to the chair by the Rev. Mr. McLean of New Jersey; was read and ordered to be entered upon the Journal.]

Much doubt having been entertained by our farmers and others, whether the production of silk could be made profitable in this country, the Monmouth County Silk Manufacturing Company, of New Jersey, last spring, offered a premium of eighty dollars to the person who would produce the greatest number of pounds of cocoons from the sixteenth of an acre.

In order in some measure to test the matter of profit, with reference to this premium, and anxious myself to see what could be done the first season, even by the most inexperienced, I measured and planted with the morus multicaulis the sixteenth of an acre.

The ground was laid off in a parallelogram form, about thirty by ninety feet. The soil was not rich and not more than two ordinary loads of manure, worth one dollar each, was put on the lot. I planted roots the growth of the previous season, in an upright form in rows eighteen inches apart, and the trees about ten inches apart in the rows—twenty-three hundred and twenty roots in all. The ground was by no means suitable for trees, being a cold heavy clay, they were accordingly small—not having attained an average of more than three feet the whole season. The roots were planted the twentieth of April. In order to have the full advantage of the growth of the leaves, I intended to feed but few worms at a time, and have successive crops.

On the nineteenth of June, when my trees were about eighteen inches high, my first eggs hatched, the next hatched June twenty-sixth, sooner than I expected or intended. Fearing I might get no more eggs to hatch I fed about twelve thousand worms on the sixteenth. The trees being small and the season exceedingly dry, the leaves grew very slow. About a week before the worms spun, I took from the worms I was feeding on the leaves produced on the sixteenth of an acre, about five thousand, and borrowed and weighed the leaves to carry these through. To do this required one hundred and forty-three pounds of leaves. The worms thus fed, together with a few hundred of the two crop variety fed late in the season, produced *thirty-eight pounds and eleven ounces* of *cocoons.* After deducting the proper amount for leaves borrowed, which, according to Count Dondola, is twenty-one pounds of leaves for each pound of cocoons—six pounds and thirteen ounces being deducted, I had from the sixteenth of an acre *thirty-one pounds and fourteen ounces of cocoons.* About nine pounds of these cocoons were the mammoth white, the balance were the common sulphur, except about two pounds of the two crop variety. I was entirely ignorant of the process of feeding when I commenced, and indeed of the necessary fixtures and accommodations for feeding to advantage. I fed them as much as they would eat, kept the hurdles clean, and the room well ventilated. The weather was exceedingly warm during the whole time of feeding, but the worms were remarkably healthy, and all wound in about thirty to thirty-four days.

Now as to the matter of profit if thirty-one pounds fourteen ounces is produced from the sixteenth of an acre, then *five hundred* and ten pounds is produced from the acre.

If the cocoons are worth forty cents per pound, which I presume is a low estimate, and if they are sold to the manufacturers, then the proceeds of an acre will be $204. In regard to the expenses of feeding, I do not deem it necessary to enter into particulars, these indeed it is difficult accurately to estimate. They consist in interest on investment for trees, rent of land, and of cocoonery, and the wages of persons employed in feeding. In very many cases the whole expense to the farmer will be merely nominal, the work will be done by children, or persons who perhaps would do but little else, and the rent of cocoonery would be nothing, for a barn, a shed, or a garret may be used, where little or no expense will be incurred. But in any event I regard it as certain that the expense could not exceed at the rate of $100 per acre, which would leave a net profit of $104 per acre. Now I would ask, can our farmers *desire* a better return than this? Do they realize the one-half of this as net profit per acre—from their *very best lands* in any other agricultural pursuits? And here let it be observed, the above is the result of *actual experiment*, and not merely *calculation.* It is a calculation founded on what I have actually done, and that others may do the same or even far more I have no manner of doubt, for there is no mystery whatever in feeding the worms, the whole art consists in keeping each day's hatching by themselves, in feeding as much as they will eat, in keeping them clean and well ventilated—and with a good crop of eggs success is absolutely certain.

But I am persuaded the net profits per acre may be safely put at *double* the above amount, viz: $208. For, owing to the impossibility of procuring eggs, and to the fact that my worms were all fed before my trees had attained much more than half their growth, I did not feed half the worms which I had leaves to feed. In this opinion every judicious silk-grower who has seen my trees concur. *But even if only* $104, net profit, can be obtained from the acre the *first* year, the amount in proportion which I *actually produced*, what may be reasonably expected the *second*, the *third*, the *fourth*, and the *fifth years?* So far as I am informed it is allowed that the amount of foliage each succeeding year, while the trees are comparatively young, will be so much greater, that the grower can feed at least one-third more each year than were fed on the same trees the preceding year. The net profit then will be, after a very large allowance for expenses, *first year*, $104; *second year*, $138 66; *third year*, $184 88; *fourth year*, $246 50; and *the fifth year*, $328 56.

But another view of the subject may be taken, when the net profit per acre will be much larger than the above. Every grower ought, and undoubtedly will, ultimately reel his own cocoons, instead of taking them to the manufacturer to be reeled. My own experience in reeling convinces me that there is really no great difficulty in reeling the cocoons. A little experience will enable any one to do it with ease and facility; and if the grower reels his own cocoons his profits per acre, will be at least one-fourth more than the above estimate or calculation. That is the net profit per acre will be, *the first year*, $130; *the second year*, $173 32; *the third year*, $231 10; *the fourth year*, $308 12; *and the fifth year*, $410 70.

The above estimates, I know, are much *below* the estimates of many writers on this subject—but I am aware that even these will appear large to those whose minds have been but little turned to the production of silk; and the *very fact* that the profits are represented as being *so large* may make many persons incredulous. But why should it have such an effect? A new road to wealth is just opening. It is as yet, indeed in a great measure untried, but 'hope dawns auspicious and promises that the day and its brightness shall be ours.' I would not endeavour to persuade a single individual in the community to engage in this enterprise, if I did not believe he would reap a most liberal reward for his expenditure and labour. With a climate and soil as congenial to the mulberry and the silk worm as any on the globe; with an annual consumption of not far from $25,000,000, and this constantly increasing, and with a population as enterprising and ingenious as any on earth, how can we fail of success? Less than fifty years since we were just commencing to grow and manufacture cotton. Now it has advanced from nothing to be a principal source of our national wealth—though confined to less than half the Union. And I appeal to the intelligence of every reflecting man, is it not more probable *now*, that in forty years to come, silk will be a great national interest, than it was forty years since that cotton would be now such an interest?

No enterprise could ever be commenced under more favourable circumstances. The acts of congress and of the legislatures of many of the states shew that they regard with interest and favour the introduction of this new branch of industry. A few hundred dollars will furnish a sufficient stock of the morus multicaulis to make a beginning, and such is and will continue to be the demand for these trees—that a part may be sold the first season to defray the original cost, and if success should not equal expectation nothing is lost. Because I wish my fellow-citizens more prosperous and happy, and because I believe the production of silk in this country is destined, at no distant day, to add more to individual and national wealth, and to the glory of the republic than any enterprise in which, as a people, we have embarked for the last age, I commend to them this subject. D. V. McLean.

Freehold, N. J. December 8th, 1838.

Mr. Cobb, of Massachusetts, remarked, that he had long since known the importance of the silk business to the country, and was early convinced that he could not do a greater good to the service of mankind, and this country in particular, than to devote himself to the cause; as long ago as 1826, he reared silk worms from eggs sent to him in a letter from the late Dr. Wood, of Boscawen, New Hampshire, to Dedham, Mass. his present residence. He found no difficulty to be encountered from the soil or climate; that the mulberry was found as far north as Lake Champlain, and that there was hardly a farm throughout the whole extent of our country where silk could not be produced. It was a remarkable fact that during the season of the silk worm, according to our best meteorological journals, the thermometer scarce ever fell below 60°, and that above that, there was no need of artificial heat.

He said that he made known his experiments in this business to the Massachusetts legislature, and that their committee of agriculture became convinced of the importance of the subject and of the extensive field of enterprise that was open to us, and recommended to the legislature to make a small appropriation of funds to diffuse information among them. This was resolved on, and he was employed by the executive of the commonwealth to prepare a concise manual with suitable directions for the culture of silk, for distribution among the people; to which service he attended, and the silk manual was published, and afterwards circulated throughout the commonwealth, and one thousand copies were purchased by order of congress for distribution among the members. But, said he, we soon found that the agricultural portion of the community would not embark in it without it could be manufactured, and that something must be done to introduce and perfect the manufacture in this country. But when he looked into the history of the business, and learned at what great expense the manufacture had been set up in France, and subsequently in England, and the fostering care with which the governments of those countries had shown for it, as contrasted with our own, he wondered that he did not despair. A fortunate circumstance, however, threw in his way a small hand throwsting machine brought from England, by an emigrant to this country, as he said at great risk and hazard. That machine was now in his garret at Dedham. He immediately set his ingenuity at work and succeeded at last in making two larger machines, combining the principles of the small imported one, and also the winding and doubling frames required to prepare the raw silk for the throwsting frames. One of the first frames ever built in Massachusetts for throwsting silk is now in his factory at Dedham, the other is in the Connecticut Silk Manufacturing Company's works, in Hartford. Finding that he could succeed in the erection of the proper machines for preparing the raw silk, his attention was more particularly drawn to the silk reel, or machine on which the silk was drawn from the cocoon. And here, he remarked, was a very important stage of the business, as the value of the raw silk depended very much on the manner in which it was reeled, he felt very anxious that beginners in the business should start right. The principal difficulties to be encountered here, were the unevenness of the thread and the sticking together of many of them, called glazing, by reason of the gum.

An even thread was produced by keeping up about the same number of fibres of the cocoon to a thread, he did not mean an exact number, they had silk of six to eight cocoons, twelve to fifteen, fifteen to twenty, twenty to thirty cocoons, and the coarse silk of twenty cocoons or thereabouts, when level and even was most wanted for our own manufacture at present. He had furnished silk reels for $10, each combining the principles of the Piedmontese reel, with some little improvements of his own, as he thought, and when persons had come to his establishment and got all the necessary instructions and accompaniments of the reeling business, he had charged them $25.

That during the present year he had been able to manufacture into sewings 2,700lbs. of raw silk, mostly of foreign growth. That one year he had caused the cocoons at Mansfield, Conn. to be bought, and had them reeled, and had manufactured the silk at Dedham—that for several years he had purchased what silk was for sale in that region—that about one-half of it was manufactured in families in the domestic way into sewing silk, which answered very well for country, but was not acceptable to city tailors. That the American silk when properly reeled, was more strong than the imported, and was more esteemed on account of there being less waste in the subsequent processes of manufacturing.

With regard to the mulberry, he observed that there were many varieties; that most approved was the multicaulis—he had cultivated this since 1831. The best mode of propagating this was by cuttings; the ground (a light and not very rich soil he preferred for it,) was prepared by ploughing in the fall and again in the spring, and the buds placed in drills about four feet wide, and twelve inches in the rows, placed in an angle of forty-five degrees, the bud being towards the south, and covered about an inch and a half; the rows were kept clear of weeds and the ground kept in a loose state, by passing between the rows often with an instrument, called the cultivator.

Mr. Cobb then proceeded and explained the different processes to which the raw silk was subjected in its manufacture into the finished article for the markets—adding that much employment was afforded by it, and that in addition to the twenty millions dollars worth required by our own wants, France opened a great market to us, as well as England.

Remarks of DR. WM. GIBBONS, of Delaware, on offering his resolution recommending cultivators of the mulberry to turn their attention to the culture of silk.

In the following estimate of the intrinsic value of the morus multicaulis, in the culture of silk, I present nothing, but what any one, with a little knowledge of the subject may arrive at for himself. The circumstances alone through which it was elicited, gave it a peculiar interest. I had heard it repeated from various quarters, and read it in the papers of the day, that the price given for the morus multicaulis was an absurd extravagance, that the traffic in it was a wild and ruinous speculation, a humbug, &c. From this cause I was induced to sit down soberly at my desk, and descending to the root of the matter, calculate what the tree was worth, *for the production of silk alone;* discarding all speculation on the profits of raising the trees for sale. And in doing this to bring my opponents to ground that could not be disputed, by taking known and established data for this calculation, to wit:

1. That one tree of the morus multicaulis, with its side branches, costing sixty cents, with allowance for failures, will make at least sixteen trees, by cuttings.

2. That one cutting, in good ground and with good culture, will produce, the first summer after planting, from eight to ten ounces of leaves.

3. That 3,000 good cocoons will produce one pound of silk.

4. That 12,000 cuttings will grow for one year, on an acre.

5. That three-quarters of an ounce of leaves will feed a worm.

With these data, the following results must be manifest.

1. 750 trees, including the roots, plant an acre of 12,000.

2. 12,000 trees from these cuttings, yield 100,000 ounces of leaves.

3. 100,000 ounces of leaves, will feed 130,000 worms.

4. That an allowance of 10,000 in 130,000, for death of worms, and bad cocoons is a sufficient allowance, and

5. That, therefore 130,000 worms, will yield 120,000 good cocoons, yielding when reeled, forty pounds of raw silk, and

Lastly, that forty pounds of raw silk, well reeled, will bring $200

The expense may be estimated as follows,

Rent,	$10	
Planting and culture of the trees,	30	
Raising the worms,	30	
Reeling the silk,	20	
		90
Profit per acre,		$110

In those states where a bounty is given, it must be added to the above, and where the trees are left out through the winter, the planting, &c. of the trees and cuttings must be subtracted from the amount of cost.

The sum expended for trees at 60 cents, is $450; the net gain, therefore amounts to twenty per cent. the first year on the capital laid out, and leaves $30 for incidental expenses.

For the second year the cultivator has 192,000 trees and roots, the net profit of which, planted on sixteen acres, will amount to $1,760, which will leave him a handsome income, and allow him ten per cent. on the cost of a cocoonery. The profits of the third year, should he plant all his roots and cuttings, will pay him for all his improvements, and leave a large sum of money in his pocket.

Now if these important results, which may be readily obtained, were brought before the American public by being carried out in practice, in different sections of the country, it could not fail, eminently to encourage and extend the silk culture.

Remarks of GIDEON B. SMITH, on the resolution recommending the Piedmontese Reel for adoption by the American public.

MR. SMITH, of Maryland, remarked that the great object to be attained was uniformity in the quality of American raw silk, and this could only be accomplished by the adoption by our whole country of a standard of reeling. As the subject had been suggested by him in the business committee, he would give his reasons here, why he considered the subject of so much importance, and also why the Piedmontese reel was the only one on which we can rely for the attainment of the great object.

In the first place, said Mr. S. all principal articles of produce are subject to regulation by certain legal enactments, or by inspection, or both, in all countries. The Piedmontese government required all raw silk to be reeled upon a reel of a particular construction, that the form and quality of the article might be uniform and superior. No sooner was this regulation adopted by the government than an improvement in the value of the article took place, and to this day, Piedmontese raw silk commands a higher price than that of any other country. In our own country, the article of flour is not only required to be inspected before it can be sold, to insure its conformity to certain standards of quality, but even the laws require that the barrel which contains it shall be of a certain number of inches in length of stave, and so many inches in diameter of head and bilge; not only these, but the barrel must contain 196lbs. of flour. And similar regulations exist in relation to almost every other article, certainly all staple articles. Why and for what reason are these regulations adopted? Need I ask this large assembly this question? Is the answer not most obvious to all men who are acquainted with the commerce of the world? The reason is, that the article shall always be of the highest attainable quality, and that it shall be known as such in the commerce of the world; that it shall establish and maintain a character for itself, which shall give it precedence every where. It is well known that in foreign countries the value of articles is often depreciated by mere character, and the reverse. For instance, in South American ports the price of flour varies more on account of the *brand* than on its intrinsic quality. A vessel load of one particular brand, often sells for two or three dollars a barrel more than that of another brand; when, if the real quality of the two parcels had alone been looked to, perhaps the prices would have been reversed. The reason of this preference was alone to be found in the previously established quality of the preferred brand; and it was a fact to be remembered by this assembly, that however good other brands might be, it required a long time to counteract the prejudice in favour of the object of preference. Much, therefore, depends upon character, and it stands us in hand, as beginners in the great business of producing silk, to establish a character for our raw silk at the start, that shall not only insure it equality of consideration in all the markets of the world, but give it precedence every where. And, (excuse me for repeating what I have so recently asserted, when I had the honour to address you on another subject,) all we want to secure this precedence in the very factories of Italy herself, is this uniformity and excellence in reeling. Yes, sir, adopt this resolution, and let the American people imbibe and practise upon its spirit, and you will kill every silk worm in Europe. The Italians themselves, to say nothing of France and England, will give us twenty to thirty per cent. more for our raw silk than they will for any produced in Europe; because, besides its regular conformity in reeling to their known and accepted standard, its intrinsic quality of fibre is superior to all other silks, owing, as I have before stated, to the peculiar adaptation of our climate to its most perfect production.

In the second place, the reasons why the Piedmontese reel is the only one on which we can rely for the accomplishment of this great object are these. The Piedmontese reel produces the most perfect article of raw silk of any reel known. For a long period of time the silk producing countries of Europe, were without any fixed standard of reeling. Almost every filature used reels different from all others. The forms of the article were as various as the number of the reelers. The consequence was, that the manufacturers were obliged to adapt their machinery to every little parcel of raw silk. This caused much trouble and expense to the manufacturers, and they of course were obliged to deduct an equivalent from the price they paid for the raw material. This condition of the silk producing interests at length attracted the attention of the Piedmontese government, which, after long deliberation, appointed a board of scientific men of the highest character, to construct a reel upon such principles as should insure the most perfect article. The result was the reel now known as the Piedmontese reel, and which is universally used in Italy, and which is now recommended to your attention, and for the adoption of the American people. Let me digress again for a moment. I do not pretend that '*Yankee ingenuity*' cannot invent a more ingenious machine, I know them too well for that, nor do I wish to compel all our people to purchase and use this or that man's manufacture or construction—we care not who makes or who sells the reel used. The great object is to induce all our people to use reels that shall produce a uniformity of results; and as the Piedmontese reel produces raw silk of the most perfect quality; as silk from this reel is known and appreciated all over Europe, and all the machinery of the factories are adapted to its use, we ought to adopt this reel also. As we are *beginning*, it will be far easier for us to adopt the Piedmontese reel and make our raw silk conform to the standard of form now preferred, than to compel all the factories of Europe and America to alter their machinery for the purpose of adapting it to our silk. The Piedmontese reel is constructed upon principles peculiar to itself. The skein produced by it is always exactly of a certain length (six feet eleven inches circumference) the threads are laid upon the bars in a diagonal line, crossing obliquely each layer in such a manner that the fresh wet thread never comes in contact with the wet thread just before laid on, and consequently there is no glueing of the threads together. The skeins thus reeled are also unwound by the manufacturers without any waste, as the peculiar manner of laying it upon the reel enables them to unwind it without any difficulty from *tangling*. Various other valuable objects are obtained by the use of this reel, which it would take too much time to describe in detail.

But, continued Mr. S., even if this reel possessed no single quality superior to the hundreds of other kinds, the single fact that the article produced by it is known and preferred throughout Europe and America, is sufficient of itself to warrant us in universally adopting it.

It seems necessary to explain that the object in recommending the Piedmontese reel, is, that we may produce the best possible commercial article of raw silk. We have no reference to the making of sewing silk, or other domestic articles; nor have we any reference to the use of the various machines that have been invented for making sewing silk, &c. These machines are all, doubtless, admirably adapted to such purposes; and will no doubt be used for them. But it seems necessary to say here that raw silk as reeled on the Piedmontese reel, is adapted to all the forms of manufacture, to which raw silk can be applied, and that after it is thus reeled it can be doubled and twisted into any form required. It is a matter of doubt with me, therefore, whether any of these machines will be retained in use for any kind of silk after we obtain a thorough acquaintance with the subject.

Before I conclude, permit me, in answer to various questions from different parts of the house, to say, that there is in Philadelphia, a perfectly constructed Piedmontese reel. It was imported in 1826, by Dr. James Mease, of that city, who was then actively engaged in promoting the cause; and I believe that reel is the only true one ever imported. Dr. Mease early foresaw the great advantage of *beginning right* in this business, and permit me to say here, that to him is the country indebted for much valuable information on the subject of the silk culture.

Permit me, Mr. President, to make one more remark, and I will then leave the subject to the disposal of the convention. I have laboured hard and long in the silk cause; I have done much to introduce into our beloved country, this most valuable branch of industry; but I have never done any thing of half the importance to the cause that this resolution will accomplish, if seconded by the American people. I feel, Mr. President, that all that has been done, is a mere drop in the bucket compared to this. I therefore ask the convention to pass this resolution, or at least the spirit of it, for I care not for the form, so that we obtain the substance—and I shall then have done my task, I shall have accomplished the great work that has been, I might say, the main object of my life—or at least of twelve years of it. Were I required to point out, as the last act of my life, the way in which my country and countrymen would be most benefitted, I should unhesitatingly point to the general production of silk in a domestic way, in all our farmers' families and in a uniform manner, as the great source of national and individual prosperity, yet reserved to the American people.

ADDRESS

TO THE PEOPLE OF THE UNITED STATES.

Fellow Citizens:

A convention of the friends of the silk culture assembled in Baltimore on the 11th ultimo, and remained in session for three days. Delegates were present from eleven states, and the District of Columbia, amounting in number to nearly three hundred; and, we believe, that for intelligence and respectability, this assembly would not suffer in comparison, with any body, of equal numbers, which any of the great interests of our country have brought together. Among those assembled were a number who have been practically engaged either in the culture or the manufacture of silk, and they exhibited various specimens of this beautiful and valuable article, which certainly gave fair promise of success to those who shall engage in the business. This convention, in the course of its transactions, appointed the undersigned to address you on the importance of the silk culture; and we now ask your attention while we endeavour to show that you will promote both the interests of the country, and your own individual prosperity, by giving this business a fair trial.

That it is desirable the United States should become a silk growing country, provided it can be done with a fair profit to those engaged in the business, is so evident that little need be said upon the subject. The consumption of this article has been rapidly increasing, particularly within the last few years. In 1821, the amount of the silks imported, as ascertained from the custom house returns, was not quite $4,000,000. In 1825, the amount had arisen to nearly $10,500,000; and in 1837 to over $20,000,000. It should be borne in mind too, that we import other articles either of necessity or luxury, nearly or quite equivalent in cost to the value of all our exports; and the consequence is, that we must either run in debt for the principal part of the silks we use, or be subject to a constant drain of the precious metals. A system like this cannot be long continued consistently with the prosperity of the country. We must curtail our imports of this article, or we must produce the raw material ourselves, and export it to pay for such of the silk fabrics as we cannot with profit manufacture for ourselves.

We might extend our observations upon this branch of the subject, did we not believe that no further argument is necessary to satisfy you, that we ought to become a silk growing country, provided the business will yield a fair profit to those who undertake it. Let us proceed then to this inquiry.

In the first place it may be stated that the climate of our country, and much of the soil, are such that the silk we make is not excelled, either in beauty or strength, by that of any country in the world. For the truth of this fact we may appeal to the testimony of every foreigner, capable of judging, who has had an opportunity of testing our silk. Shortly prior to the revolutionary war, no less than 10,000lbs. of raw silk were sent from the colony of Georgia to London, and its quality was such that it commanded from 2 to 3 shillings sterling per pound, more than that of any other country. We are not aware that any considerable quantity has been sent to Europe from states farther north, but European manufacturers have frequently examined it, and they have uniformly given it the character stated above. We can produce then excellent silk, in the various parts of our country, and to any desirable amount. But we are frequently met with the argument that although our soil and climate are both very favourable to this culture, still labour is so high that we cannot compete with the silk growing countries of Europe and Asia, where the price of labour is extremely low.

Many of you will no doubt recollect that prior to the war of 1812, although we were growing large amounts of cotton, we received all our more common and substantial muslins from India. During the war, when our commerce was greatly reduced and the prices of all imported articles became very high, cotton manufactories were commenced in some of the eastern states, and helped to supply the deficiency. When the times of peace again arrived and commerce revived, it was very generally predicted that those manufacturing establishments must be broken up, as the principal articles they then made were such as to bring them into direct competition with those countries where the price of labour was at its lowest point. Was this prediction verified? Far from it. Those manufactories have been greatly extended, and they now give us muslins for less than half the price we formerly paid for those of India, and of a quality greatly superior. In fact we now export such muslins to India, and sell them at a good profit. The high price of labour, in this case, then, has not prevented a successful competition with those countries where the wages are such as scarcely to afford the most meagre subsistence to the population engaged in it. Why then should the high price of labour prevent our raising silk to a good profit? The fact is, and it may be applied to all cases, that in those countries where labour is very low, business is carried on much more sluggishly than where it is high, and their implements are more rude and less adapted to the purpose; so that the same amount expended will not produce more in the former case than in the latter.

But we need not proceed further with general arguments, to prove that the silk culture will be a profitable branch of national industry; facts were elicited during the sittings of the convention, which are more to the purpose than any arguments we could use. The Rev. D. V. McLean, of Freehold, New Jersey, stated that, in order to try what amount of silk could be made from a given portion of ground, and that too by a person who had no practical knowledge of the business, he planted a small lot of known dimensions, with morus multicaulis, in the spring of the past year, and that he made, during the summer, from this lot, at the rate of 510 lbs. of cocoons or 51 lbs. of raw silk per acre. He further stated that, for want of a sufficiency of the silk worms' eggs, he did not feed nearly so large a number as his foliage would have supported. But suppose we take this amount as the average per acre, and it is certainly not too high, and we shall presently find that the business will yield a large profit. The value of the raw silk is not less than $5 per pound, which will give us $255 as the gross produce per acre. The gentleman above named did not keep any account of the expense of collecting the leaves, attending to the worms, &c.; but, a Mr. Smith, a very respectable farmer of Amherst, Massachusetts, who has been for several years engaged in the culture, stated that he knew from actual experiments, that when he paid the full price for labour it did not cost him more than $2 per pound for the raw silk he obtained. Other gentlemen present, who had considerable experience in the business, corroborated his statement—suppose, however, that in order to be perfectly safe in our estimate, we add 25 per cent. to this amount, making the expense of producing the pound of raw silk $2.50 or $127.50 for the 51 lbs. and we have a net profit of $127.50 per acre. Permit us now to ask you, what branch of your usual business yields a profit any thing like this?

We see then that if the silk culture is undertaken by the farmer as an exclusive business, it will yield him a rich return, even when he has to pay the full price for all the labour employed. But if ever the United States shall become extensively engaged in this branch of industry, and that it will eventually become so engaged we have not the shadow of a doubt, by far the greater portion of the article will be produced by farmers or planters, who are at the same time raising their ordinary crops. Most of the labour can be as well, and as expeditiously, performed by children of from nine to twelve years of age as by robust men; and thus a large proportion of our population, who are now consumers but produce nothing, may be most profitably employed during a portion of the year. Every farmer who has a family of children about him, by planting a small portion of his ground with morus multicaulis, may make from 50 to 200 lbs. of raw silk per year, with very little interruption to his other pursuits, and at a very trifling expense; and thus add largely to his yearly income.

But suppose he has no family of children of his own and is obliged to hire those of his poorer neighbours; he is then increasing his own profits by this business, at the same time that he is rescuing these children from the evils of an idle life, and giving them food to eat and raiment to wear.

There is still another view of this subject which is of great importance, particularly to the citizens of many of the Atlantic states. In all of these we find large quantities of land, either naturally poor, or so reduced by culture as to yield no profit to the cultivator. The consequence is, that the people of these states are rapidly emigrating to the more fertile regions of the west to seek a subsistence for themselves and their families; giving cause for fear, that, unless some means can be found to remove this necessity, some of those states will soon be in a measure depopulated. Now it fortunately happens, that poor, sandy, and almost worn-out lands yield the very best of silk; and although the quantity will not be so large as from more fertile lands, the profits will be such as to leave no inducement to the inhabitants to leave the homes of their fathers, in order to raise wheat, corn, tobacco, or cotton, in the fertile valley of the Mississippi.

We think we have, in the few remarks we have made, shown you sufficient inducements to make a fair trial of the silk culture. We might add many more facts if we thought it necessary, but these you will find stated more at large in the periodical publications which are devoted to this cause, and particularly in the 'Journal of the American Silk Society,' published in Baltimore, and to which we refer you, in the full confidence that you will there find all the directions necessary for propagating the trees, feeding the worms, and reeling the silk, as well as full and authentic intelligence as to the state of the silk market and trade—to be procured by maintaining a regular correspondence with our public functionaries and others, at home and abroad, possessing most experience and having access to the best sources of information. To commence the business upon a moderate scale will involve but a small outlay of capital, and even this will yield as speedy a return and a much larger one than you could hope to receive from almost any other investment.

Gideon B. Smith,
Wm. Gibbons,
S. R. Gummere.

January, 1839.

MARYLAND STATE SILK CONVENTION.

A convention of delegates from the different counties of Maryland was held at Annapolis, on the 15th, 16th and 17th of January, 1839, the object of which was the advancement of the great cause of the culture of silk in Maryland. The convention was organized by the appointment of the Hon. Judge Chambers, as President, and Dr. Dennis Claude, secretary. The inclemency of the season prevented the attendance of many delegates, especially from the Eastern Shore, but we are pleased to learn that the convention was well attended and of a very respectable character. The evening sessions were held in the hall of the house of delegates, by permission of the speaker. Among the business transacted by the convention, resolutions were adopted, declaring it as the opinion of the convention, that the soil and climate of all parts of Maryland, are peculiarly adapted to the culture of silk, and that silk can be profitably produced in this state; recommending the Piedmontese reel or any other combining the same principles and proportions, to the people of Maryland; recommending the people of this state to turn their attention to the culture of silk; recommending the Journal of the American

Silk Society, to the patronage of the people, &c. A committee was appointed to prepare and present to the legislature, a memorial setting forth the advantages that will accrue to the people of Maryland from the culture of silk, and praying that body to grant bounties on the production of cocoons and raw silk, and for the protection of mulberry plantations from depredation, by making it felony to steal mulberry trees or mulberry leaves. Another committee was appointed to prepare an address to the people of this state, on the culture of silk. A state silk society was also organized, auxiliary to the American Silk Society, of which the Hon. JUDGE CHAMBERS, was elected president, and a respectable number of gentlemen immediately handed in their names as members. A constitution similar to that of the American Silk Society was adopted, and county societies, auxiliary to the State Society were recommended to be formed. In the course of the proceedings of the convention and society, much information was elicited from various gentlemen who possessed practical knowledge, and a powerful interest was awakened in the cause. Many members of the legislature, of the court of appeals, and others who were in the city on other business, attended the sittings, and we can have no doubt that the cause received a powerful impulse on the occasion. We shall probably be able to publish the proceedings at large in the next number of the Journal. In the mean time it may not be out of order to ask what are our neighbours of other states doing?

SILK IN DELAWARE.

A letter to the editor, from Dr. A. Naudain, announces the passage of a law giving, for the space of four years, a bounty of fifteen cents a pound on cocoons, and fifty cents a pound on all silk reeled from cocoons raised in Delaware. Thus, those who may embark in the business, are sure of being protected from loss by the legislative bounty for a certain period, during which as much experience and knowledge of the business will be obtained, as will insure its successful prosecution, when that protection is withdrawn.

By states that have not yet offered a bounty, it ought to be recollected that men of capital will embark it in this business in the states where a bounty insures a profitable result; and the states which withhold that bounty, will cut off their citizens from the benefit of such capital, and from a fair start in a branch of industry which cannot fail to prosper and to confer, as in the case of the regular packets from New York—the greatest benefits on those who *take the lead.* In this, as in other cases, a stern chase may prove a long chase. Let Maryland and Virginia look to it.

HIGHFIELD COCOONERY—NEAR GERMANTOWN.

The advocates of silk culture in the United States will be gratified to hear that a son of the lamented Dr. Physick, whose learning and professional achievements reflected honour on his own country, and gained for it and for him, renown in all others, where science has a votary, has made very liberal investments to promote the growth of silk, by building a large cocoonery and establishing a large mulberry plantation, near Germantown.

The advantage presented to the public by his extensive plan of operations consists, in his proposal to give *long credit* for trees to persons of limited means who may offer the requisite testimony as to their trust-worthiness. Of his establishment and plantation, his enlightened views as to their management as a school of instruction, and its inevitable influence in promoting rapidly the production of *American silk,* we shall speak more at large after embracing the first opportunity of personal and more minute observation and inquiry.

ANOTHER MOST AUSPICIOUS OMEN!—We find in the Richmond Enquirer, the memorial of Morris Pollok, a silk throwster, in Glasgow, Scotland, whose outlay is about $150,000 dollars annually. He expresses his conviction that the 'genial climate of Virginia, is well suited to the growth and manufacture of silk,' and proposes to establish in Pittsylvania county of that state, a manufactory which will afford a market for about $100,000 worth of raw silk. The memorial and proceedings connected with it, will be recorded in the Journal of the American Silk Society, constituting as they will do, iniatory measures of the highest import towards the establishment of a great national interest.

W. G. Lyford, a man who, if he does not meet with success, does more—deserves it, no less for his public spirit, than for his talents and his industry, has issued proposals for the Internal Improvement Journal and Baltimore Prices Current. In a note, he gives the following view of the growth of the *cotton culture* in the United States. Twenty, aye, ten years hence, we shall have something like it to note in respect of *silk.*

'In 1791, only 188,316 lbs. cotton were exported from the United States; in 1798, it was less than 1,000,000; in 1802, the amount was 27,501,075 lbs.; in 1819, it was 87,997,045 lbs,; in 1820, it was 127,860,152 lbs.; and in 1830, amounted to 298,459,102 lbs.; in value $29,674,883! This amount in value was *less*, by $7,000,000, than in 1825, when the quantity was less by 122,000,000 lbs.; the price in the latter year being more than double that of the former. The amount exported during the year ending with September, 1838, was upwards of 630,000,000 lbs. leaving of that year's crop, including nearly 8,000,000 lbs. of stock of previous year, which remained on hand, upwards of 98,000,000 lbs. for home consumption; the year's crop, in round numbers, exceeding 720,000,000 lbs.!

PREMIUMS FOR THE PRODUCTION OF SILK.

The executive committee of the American Silk Society, in accordance with the constitution of said society, offer the following premiums, viz:

1st. For the greatest quantity of merchantable raw silk, produced by any individual from cocoons of his or her own raising during the year 1839, One Hundred Dollars, or plate of that value at their option.

2d. To the person or association who shall make the greatest quantity of merchantable raw silk from one-fourth of an acre of ground, the trees of which shall have been planted in the year 1839, Two Hundred Dollars, or plate of that value, at their option.

3d. To the person or association who shall make the second greatest quantity of merchantable raw silk from one-fourth of an acre of ground, the trees of which shall have been planted in the year 1839, One Hundred and Fifty Dollars, or plate of that value at their option.

4th. For the best pound of sewing silk, made from cocoons of the competitor's own raising, in 1839, Fifty Dollars, or plate of that value, at their option.

5th. For the second best pound of sewing silk, made from cocoons of the competitor's own raising in 1839, Thirty Dollars, or plate of that value, at their option.

Five pounds of the silk offered for the first premium, and the whole quantity produced for the other four premiums, must be deposited with James O. Law, treasurer of the American Silk Society, in Baltimore, previous to the next annual meeting of the Society, which takes place on the 11th December, 1839.

Gideon B. Smith,
Cor. Sec'ry American Silk Society.

RURAL ECONOMIST.

A WORD TO OUR READERS.

The present number can hardly be regarded as a fair sample of the Journal, as it is almost exclusively occupied with the *proceedings* of the Silk Convention and Society, which were ordered to be printed in it and to be presented to congress. For the next number the ground will be clear for practical essays and interesting facts on silk culture, while a larger portion will be reserved for the department of *Rural Economy*.

There can scarcely be a person concerned in the culture of silk, who will not combine with that, the practice of agriculture and gardening—and to whom, of course, new discoveries, experiments and suggestions on those subjects will be interesting and valuable—sufficiently so, of themselves, we trust, to justify and to invite the public patronage. For an ample supply of valuable *materiel* for this portion of the journal, we may safely rely on the pages of the numerous weekly and monthly publications, which in the north and the south are devoted with distinguished ability to those subjects, such as the Farmers' Register, the Farmer and Gardener, the Farmers' Cabinet, the Cultivator, the Genesee Farmer, and the New England Farmer—and for silk, the Silk Culturist, the Silk Grower, and the Southern Silk Manual. If, in fact, the title of this work, which the executive committee of the American Silk Society has directed to be published, were to read Journal of the American Silk Society, and *Spirit of the Agricultural Journals* of the day, it would but more exactly indicate the design and scope of the publication contemplated. Silk, it is true, will so speedily become a great national interest—so *many thousands* will embark in it on scales more or less extensive, that a periodical dedicated to that interest alone, under the auspices and with the sanction of a society composed of active members, practical culturists in every state, might be expected to meet with adequate support to sustain it; and here be it said that this work has been established and is looked to, not as a source of profit to any one concerned, but as a *suitable and efficient means to accomplish in the shortest time a great public purpose.* A means of bringing to one common point, isolated facts and individual experience for the instruction and benefit of the whole community; as a provident farmer would conduct the various rills which of themselves have barely volume and force enough to mark their feeble and sluggish way with any signs of fertility, into one great central reservoir to irrigate and fructify his whole estate.

ON THE MANUFACTURE OF BEET SUGAR.

We have read with pleasure and profit, a 'Memorial of Charles Lewis Fleischmann on the manufacture of Beet Sugar,' and if we had space for it would insert it entire. This memoir contains a concise and clear history of the beet sugar manufacture in Europe, with an account of the most important and latest discoveries by which that branch of industry and wealth have been advanced with so much success in France. From this history, the friends of American *silk culture* may derive information and encouragement. They will there see from what small beginnings, and through what disheartening circumstances, a nation by the aid of wise legislation and the co-operation of men of science, may open for itself new sources of profitable industry, and absolve itself from servile and precarious dependence on foreign supply for the necessaries of life—compared with the difficulties to be encountered in the attempt to procure from this *root*, an adequate supply of *sugar* for a population of thirty millions—the obstacles that stand in the way of our self-supply of silk, appear at the very first glance, but as ant-hills to mountains—we have land almost without limit as to quantity, and almost without price. Our climate is peculiarly adapted to the growth of the tree and the health of the worm. At how little cost either of capital or labour can we procure food for the worm, and how great have been the improvements in the manufacturing machinery? Even those who are the slowest to believe, are left with but *one argument* and that more specious than sound, to wit: *the dearness of American labour?* but was not the same argument brought forward to discourage the embarkation of capital in the *manufacture of cotton?* Those who admitted that a living profit might be made under the fostering influence of war and high duties, predicted with confidence that peace and free intercourse with our manufacturing competitors, and reduced duties, would blow up, as if by a powder explosion, all our cotton manufactories! So, according to the memoir before us, it was supposed that in 1814, when the peace of Europe again allowed the importation of colonial sugar into France, the domestic manufacture from the beet, must be abandoned to the inevitable sacrifice of immense fortunes embarked in the business; yet look at the result and see what has been achieved there by a people among whom, if there be more of chemical science, to which improvement in beet sugar manufacture is so much indebted, there is assuredly less enterprise than in the United States. We are not like the nations of Europe, a people of *routine*—we have no *habits*. The cotton manufacture in this, like the sugar beet manufacture in that country, has taken deep root, so that within a few weeks past, stock in *new* cotton manufactories, at Lowell, being offered in Boston, more than a million and a half of dollars were subscribed in one day. As a branch of national industry and independence it promises to grow with the growth, and strengthen with the strength of the Union—*so will it be with the culture of silk.*

Apprehending that we may not have room for the whole memoir, in any subsequent number of this Journal, we extract a page or two, not only on account of its intrinsic interest, as a branch of agriculture, and therefore falling within the range of this department of our journal, but for the illustrations which, by analogy, it presents of the practicability of growing silk in America. It will be seen by the reader that many of the arguments which apply to the beet sugar manufacture in our own country, apply with yet greater force *to silk.*

'The existence of crystallizable sugar in the beet root was discovered by the German chemist, Markgraf, in the year 1747. He communicated the results of his experiments to the Royal Academy of Sciences at Berlin; pointed out the importance which his discovery would have on agriculture and industry, and endeavoured to bring it into practice; but at that time, the price of sugar being moderate, chemistry not enough advanced to modify the complicated operations, and the spirit of enterprise not sufficiently awakened to make it an object of speculation, the discovery remained without being put into practical use until the year 1796, (forty-nine years afterwards,) when Achard, another Prussian chemist, repeated the experiments of Markgraf, modified them, and erected the first manufactory at Kunnern, in Germany.

The results of Achard's manipulation created great sensation all over Europe, particularly in France, where the chemists re-examined the process of Achard, simplified it, and made it more practicable and profitable in its results.

These simplified manipulations were adopted by enthusiastic speculators, full of sanguine expectations, peculiar to the French character; but the results were not satisfactory, as the immensely large and costly manufactories were partly established in places where the soil was not sufficiently productive, where fuel was scarce and high, the market distant, and the operations directed by men who had not the least idea of agriculture—a science necessarily connected with the manufacture of the beet sugar—no practical knowledge of an entirely new process, and a most imperfect apparatus. The consequence of these obstacles was a complete failure, which induced the opinion over the whole world, that the extraction of sugar from the beet, though correct in theory, was impracticable on a large scale.

This, however, was not the opinion of enlightened men; they saw the causes of failure in their true light, and endeavoured to overcome and to correct them. The political events of 1812 accelerated the development of this new branch of industry; the French government, in want of a substitute for the colonial sugar, encouraged the manufacture of the beet sugar, by establishing four large manufactories, and five chemical schools, entirely for the purpose of experiments, and teaching the best method of extraction.

In 1814, these manufactories were in full operation and flourishing, when the peace of Europe allowed the importation of colonial sugar into France, causing a destructive shock to the manufacturers of indigenous sugar, which none but immense fortunes could endure, and created, again, the belief that the manufacture of the beet sugar could never come in competition with the colonial.

This might have been the final catastrophe of the manufacture of the beet sugar, had it not been for the efforts made to revive it again by some wealthy and enlightened manufacturers.

These efforts, however, did not arise entirely from the patriotic desire to promote the welfare of France, (as now pretended,) but partly to prevent the loss of immense capitals invested in buildings, apparatus, farms, &c. Moreover, the manufacturers knew there was yet five or six per cent. more to gain by an improved operation.'

'This it was that gave a new start to this favourite branch of industry; and chemistry, particularly adapted to improve the art and manufacture, assisted in simplifying the process, and discovered the mode of *reviving* animal charcoal so as to admit of its being repeatedly used, while the improved apparatus helped to economize labour and fuel; and all this, combined with a wonderful perseverance, reduced the expenses of the fabrication, and enabled the old establishments to continue in operation, even when the price of colonial sugar was very low. This created confidence and a rapid increase of establishments.

The cultivation of the beet has had the most beneficial influence on agriculture: as, in the last year, more than eighty thousand acres of land were planted in beet, producing about one million of tons of this root; and, as generally rotations of four crops are adopted, it brought at least three million two hundred thousand acres of land under the highest cultivation.'

'The following table shows the rapid increase of the manufactories, and the quantity produced in France.

			Beet Sugar.
In 1828	there were 103	manufactories, which produced	100,000 cwt.
1831	200		220,000
1836	543		950,000
1837	600		1,000,000

Or 50,000 tons of beet sugar.

The manufacture of indigenous sugar did not affect the demand for colonial sugar, as the consumption continually increased until the year 1835, as appears by a table from the Journal of Commerce of 1836, viz:

	Consumption of colonial sugar.	Consumption of beet sugar.
In 1825,	61,255,232 francs	4,000,000 francs.
1831	67,542,792	10,000,000
1832	62,669,638	15,000,000
1835	69,000,000	30,000,000'

'The general argument against the introduction of this branch of industry, that labour is too high in the United States, is incorrect, when we consider the other great advantages which the United States have over every other country on the globe in almost every business, and especially in this branch of industry.

1st. The United States possess a climate which suits the beet better than any climate of Europe, because the summers are excessively warm, which increases the saccharine property of the beet root.

2d. Plenty of cheap and rich land, subject to but a small tax.

3d. Inexhaustible stores of fuel, from which the great natural water-courses, rail roads and canals branch over the whole Union.

4th. Well constructed labour-saving machines of all descriptions.

5th. An intelligent population, which, when once acquainted with this branch of industry, will soon bring it to great perfection—a population understanding the use and management of machinery, and famous for improvements and inventions. Whereas, in Europe, the land is overtaxed, high in price, and therefore the interest upon it considerable; subject to *tithes* and other feudal burdens; while the fuel is scarce and valuable, and its transportation high and slow. The population are entirely unacquainted with labour-saving machines, and possess very little mechanical ingenuity; while their enterprise is prohibited by the excise laws of their petty governments.

It is obvious that America overbalances, with its advantages, the low prices of labour in Europe; and that she is able not only to provide herself with all the sugar wanted for home consumption, but also to supply other countries.

The sugar now produced in Louisiana, averages only about four and a half pounds per head for the population of the United States, or about seventy million pounds annually, which is but a small part of our consumption, as enormous sums are yearly paid to foreign countries for sugar, as the following table shows, viz:

1832	imported into the United States,		$ 2,933,688
1833	do.	do.	4,752,343
1834	do.	do.	5,537,829
1835	do.	do.	6,806,184
1836	do.	do.	12,514,551

This sum will annually increase in proportion as the population augments and their comforts and means improve.

By the adoption of this new branch of industry, the sums at present paid for imported sugar would be in a short time a clear gain to the country: its agriculture would be improved, and thousands of acres of exhausted and deteriorated land would be again taken up and improved. To procure the necessary manure for this purpose, the farmer would be obliged to increase his live stock, which would find, during the winter season, plenty of food in the residuum of the manufactory. It would increase the consumption of sugar among the less wealthy class, and would make their condition of life more comfortable, and, of consequence, greatly extend the population of the country.'

The treasurer of the state of Maine estimates the bounty on wheat to be paid by that state for the past year, to be from $125,000 to $150,000.

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